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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,680	06/03/2005	Richard S. Brauman	24876/1	8529

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EXAMINER
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ABBOTT, YVONNE RENEE

ART UNIT	PAPER NUMBER
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3644

MAIL DATE	DELIVERY MODE
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12/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/537,680

**Applicant(s)**

BRAUMAN, RICHARD S.

**Examiner**

Yvonne R. Abbott

**Art Unit**

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, drawn to an aquaculture apparatus comprising an enclosure associated with a photosynthetic culture tank and enclosing a gas above contents of the photosynthetic culture tank; and a sensor for sensing a level of at least one component of the gas.

Group II, claim(s) 8, drawn to an aquaculture apparatus comprising a carbon dioxide stripper associated with a production culture tank and coupled to a photosynthetic culture tank to supply carbon dioxide stripped from water in the production culture tank to water in the photosynthetic culture tank.

Group III, claim(s) 9-12, drawn to an aquaculture apparatus comprising a trigger signal generator associated with at least one of a photosynthetic culture tank and a production culture tank; and a water transfer device to selectively enable transfer of water between the production culture tank and the photosynthetic culture tank upon receipt of a trigger signal from the trigger signal generator.

Group IV, claim(s) 13-17, drawn to a method of aquaculture comprising growing a photosynthetic first species in a photosynthetic culture tank; providing the first species to a second species in a food production culture tank that eats the first species; providing the second species to a fish in a production culture tank; harvesting the fish; and providing a waste product to a scavenging species in a scavenging species tank.

Group V, claim(s) 18-19, drawn to a method of producing caviar comprising growing a photosynthetic first species in a photosynthetic culture tank; enclosing a gas above water in the photosynthetic culture tank; monitoring a level of a gas in the water in the photosynthetic culture tank by the use of a sensor sensing the gas above the water in the photosynthetic culture tank; providing the first species to a second species in a food

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production culture tank that eats the first species; providing the second species to a fish in a production culture tank; and harvesting caviar from the fish.

Group VI, claim(s) 20, drawn to a method of producing caviar comprising growing a photosynthetic first species in a photosynthetic culture tank; providing the first species to a second species in a food production culture tank that eats the first species; providing the second species to a fish in a production culture tank; stripping carbon dioxide from the water in the production culture tank and supplying the carbon dioxide to water in the photosynthetic culture tank; and harvesting caviar from the fish.

Group VII, claim(s) 21-37, drawn to a method of aquaculture comprising growing a photosynthetic first species in a first tank, water in the first tank having a first water chemistry; providing the first species to a second species in a second tank that eats the first species, water in the second tank having a second water chemistry different from the first water chemistry; and providing the second species to a fish in a third tank.

Group VIII, claim(s) 38-39, drawn to a method of aquaculture comprising growing a photosynthetic first species in a first tank; providing the first species to a second species in a second tank that eats the first species; processing the second species into pellets; and providing the pellets to a fish in a third tank.

2. The inventions listed as Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The groups listed above are not within the permitted combination of different categories of inventions of one apparatus and one process. The special technical feature of Group I is a gas sensor in association with a photosynthetic culture tank and an enclosure. The special technical feature of Group II is a carbon dioxide stripper associated with a production culture tank and a photosynthetic culture tank. The special technical features of Group III are a trigger signal generator associated with at least one of a photosynthetic culture tank and a production culture tank, and a water transfer device. The special technical features of Groups IV through VIII are the specific steps used in each method.

Therefore, there are no special technical features linking the inventions of Groups I-VIII.

3. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

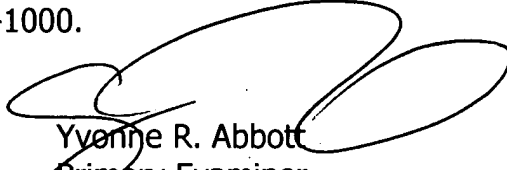
The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne R. Abbott whose telephone number is (571) 272-6896. The examiner can normally be reached on Monday-Thursday 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on (571) 272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Yvonne R. Abbott  
Primary Examiner  
Art Unit 3644